

## REMARKS

The Office Action mailed April 19, 2005 has been received and the Examiner's comments carefully reviewed. Claims 7, 10, and 13 have been amended. No new subject matter has been added. Claims 1-17 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

### Rejections Under 35 U.S.C. §102

The Examiner rejected claims 1-17 under 35 U.S.C. §102(b) as being anticipated by Cannella, Jr. (U.S. Patent 6,144,561). Applicants respectfully traverse this rejection, but have amended claims 7, 10, and 13 to advance this application to allowance. Applicants reserve the right to pursue the original subject matter via a continuing application.

Cannella discloses a panel assembly having a chassis 10 with an open front 30 to receive circuit modules or cards 18. Column 5, lines 22-25. Rear assemblies 15 having a rectangular box-like metal housing affix to a back panel 12 of the chassis 10. Column 5, lines 45-51. The rear panel assemblies 15 may include a printed wiring board (PWB) 60 for splitting a signal to multiple connectors 50 of the rear assembly 15, or may house active and/or passive circuit components. Columns 6-7, lines 64-2.

#### A. Claims 1-4

Claim 1 recites a chassis having a plurality of module compartments, and a PCB including a plurality of back plane connectors and a power input. A first module having a passive configuration is positioned within a first compartment and is configured to transmit signals to one of the back plane connectors. A second module having an active configuration is positioned within a second compartment and is configured to transmit signals to another back plane connector.

Cannella does not disclose a chassis having a plurality of module compartments, and a PCB including a plurality of back plane connectors and a power input, as recited in claim 1. Cannella discloses a chassis 10 having guides 31 for receiving cards 18; however, the chassis 10 does not include a PCB having a plurality of back plane connectors and a power input.

The Examiner states that the backplane 32 of Cannella includes a plurality of back plane connectors (element 40) and a power input (element 50b). It is respectfully noted that element 40 of Cannella, i.e., a signal connector 40, is attached to or located on a rear assembly 15 of the device, not the backplane 32 of Cannella. In fact, the backplane 32 of Cannella includes openings 37 through which the connectors 40 of the rear assemblies 15 extend to interconnect to connectors 24 of the cards 18. The backplane 32 includes apertures 37, not connectors (e.g., 40). Similarly, element 50b, a D-type electrical connector, is attached to or located on a rear assembly 15c of the device, not the backplane 32. The backplane 32 of Cannella simply does not include a plurality of back plane connectors and a power input, as required by claim 1.

In addition, Cannella does not disclose a first module, positioned within a first module compartment of the chassis, configured to transmit signals to one of the back plane connectors, and having a passive configuration requiring no power from the PCB; and a second module, positioned within a second module compartment of the chassis, configured to transmit signals to another of the back plane connectors, and having an active configuration requiring power from the PCB, as required by claim 1.

The Examiner states that the Cannella discloses a first module (element 60) and a second module (element 18) positioned within first and second module compartments of the plurality of module compartments. First, element 60, i.e., a printed wiring board (PWB), is not in fact located within one of the guides 31 (compartments) of the chassis 10, as required by claim 1. Instead, the PWB 60 is located within a metal housing of one of the rear assemblies 15. Second, Cannella does not disclose that the cards 18 provide the active/passive function as characterized in claim 1. Rather, the active/passive function disclosed in Cannella is provided by the individual PWB 60 of each of the rear assemblies 15, not the cards 18. Columns 6-7, lines 64-2.

At least for these reasons, Applicants respectfully submit that independent claim 1, and depend claims 2-4 are patentable.

#### B. Claims 5-6

Claim 5 recites a method of configuring a patch panel system including providing a chassis and a PCB having a plurality of back plane connectors and a power input. The

method further includes inserting a first passive module into a first compartment, removing the passive module, and inserting a second active module into the first compartment.

At least for similar reasons discussed above with regards to claim 1, Applicants respectfully submit that Cannella does not disclose a PCB having a plurality of back plane connectors and a power input.

In addition, Cannella does not disclose a method including inserting a first passive module into a first compartment and interconnecting the passive module with an associated one of the PCB connectors, removing the first passive module, and inserting a second active module into the first compartment and interconnecting the active module with the same associated one of the PCB connectors. That is, Cannella does not disclose active and passive modules that are interchangeable within the same compartment. (See Applicants' specification, page 17, lines 7-15.)

In particular, Cannella teaches that a particular slot of the chassis 10 is reconfigured for use with different types of cards 18 by affixing different types of rear assemblies 15 (connectorization panel). Column 8, lines 51-53. The rear assemblies 15 "are employed to customize or configure a particular slot in the [chassis] for receiving a particular type of [card 18]." Column 4, lines 49-54. Accordingly, Cannella teaches that a particular card 18 must be matched with a particular rear assembly 15, not that a passive module can be interchanged with an active module at a single back plane connector of a PCB.

At least for these reasons, Applicants respectfully submit that independent claim 5, and depend claim 6 are patentable.

#### C. Claims 7-9

Claim 7 recites a patch panel interface system having a chassis and a back plane. The back plane has a plurality of interface connectors and at least a plurality of first back plane connectors. The system further includes first and second modules that interconnect to the interface connectors of the back plane.

Cannella does not disclose a back plane including a plurality of interface connectors and a plurality of first back plane connectors, as recited in claim 7. Rather, the backplane 32

of Cannella has only a plurality of interface connectors (i.e., card sockets 34), not both interface connectors and back plane connectors. The signal connectors 40 referred to by the Examiner are provided on the rear assemblies 15 of the device, not on the backplane 32, as required by claim 7.

At least for this reason, Applicants respectfully submit that independent claim 7, and depend claims 8-9 are patentable.

D. Claims 10-12

Claim 10 recites a method of configuring a patch panel system including providing a chassis and a back plane having a plurality of interface connectors and a plurality of first back plane connectors. At least for similar reasons as discussed with regards to claim 7, Applicants respectfully submit that independent claim 10, and depend claims 11-12 are patentable.

E. Claim 13

Claim 13 recites a patch panel interface system including a chassis having compartments, and a PCB having a plurality of back plane connectors and a power input. First and second signal transmission modules are positionable within any one compartment of the plurality of compartments for signal transmission to a corresponding one of the plurality of back plane connectors.

First, at least for similar reasons as described with respect to claim 1, Applicants respectfully submit that the backplane 32 of Cannella does not include a plurality of back plane connectors.

Second, Cannella does not disclose that the cards 18 provide the active/passive function as characterized in claim 13. Rather, the active/passive function disclosed in Cannella is provided by the individual PWB 60 of each of the rear assemblies 15, not the cards 18. Columns 6-7, lines 64-2.

Third, Cannella does not disclose that active and passive cards 18 can be operably positioned within any one of the slots of the chassis 10 for signal transmission to a corresponding back plane connector. Instead, Cannella teaches that a particular slot is reconfigured for use with different types of cards 18 by affixing different types of rear

assemblies 15 (connectorization panel). Column 8, lines 51-53. That is, the rear assemblies 15 "are employed to customize or configure a particular slot in the [chassis] for receiving a particular type of [card 18]." Column 4, lines 49-54. Accordingly, Cannella teaches that a particular card 18 must be matched with a particular rear assembly 15, not that both active and passive card 18 can be operably positioned in any slot.

At least for these reasons, Applicants respectfully submit that independent claim 13 is patentable.

F. Claims 14-17

Claim 14 recites a system having a chassis, a back plane including a plurality of back plane connectors and a power input, a plurality of signal transmission modules, a plurality of interface connectors connected to the power input, and at least one control module. The interface connectors are configured to operably receive signal transmission modules having either a passive configuration or an active configuration.

At least for the reasons previously discussed, Applicants respectfully submit that Cannella does not disclose a back plane having a plurality of back plane connectors and a power input, or interface connectors configured to operably receive either active or passive signal transmission modules.

Further, Cannella does not disclose a system having a control module. Although the Examiner refers to element 60 as a control module, it is respectfully noted that element 60 is the printed wiring board (PWB) of the rear assembly 15. The PWB 60 of Cannella is not positionable within a control module compartment of the chassis, as required by claim 17. Rather, the PWB 60 is positioned within a metal housing of the rear assembly 15. The PWB 60 is also not coupled to the back plane 32 by an interface connector, as required by claim 17. The PWB 60 is not, in fact, coupled to the back plane 32 at all.

At least for these reasons, Applicants respectfully submit that independent claim 14, and depend claims 15-17 are patentable.

## **SUMMARY**

It is respectfully submitted that each of the presently pending claims (claims 1-17) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,



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